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Athletes' expectations about physiotherapy in sports injury rehabilitation in greater Accra region

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Background: Physiotherapists play a key role in sports injury rehabilitation within the sports healthcare team. A strong athlete–physiotherapist relationship is necessary for effective treatment and shaping of athletes' expectations of injury rehabilitation. Hence, it is necessary to factor the injured athletes' expectations in structuring a rehabilitation program.
Objective: The aim of this study was to determine athletes' expectations about physiotherapy in sports injury rehabilitation.
Methods: We performed a cross-sectional survey in which data was collected using the expectation about athletic training (EAAT) questionnaire from 120 recruited athletes of different sporting disciplines. Percentages, means and standard deviations of the expectation scores were computed. Associations between socio-demographic characteristics and athletes' expectations of physiotherapy in sports injury rehabilitation were analyzed with the chi-square test. Differences between the athletes' expectations of physiotherapy and

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demographic characteristics were also analyzed with Kruskal–Wallis and Mann–Whitney tests.
Results: The study revealed that there was no significant difference ($p > 0.05$) between gender, injury type, physiotherapy experience and mental skills experience and the athletes' expectations. There was a significant difference ($p < 0.05$) between competition level and athletes' expectations.
Conclusion: It was concluded that athletes in the Greater Accra Region have high expectations of physiotherapy in injury rehabilitation; thus sports physiotherapists would need to enhance their communication with athletes which may also help them better understand the risks, benefits, timeline and rehabilitation approach.

Keywords: Expectation; physiotherapy; sports injury; rehabilitation.

Introduction

Sports injuries occur while participating in organized sports, competitions, training sessions or organized fitness activities.[1] Common high-injury risk sports are football or soccer, basketball, cricket, volleyball, skiing and tennis.[2] Sports injuries result from acute trauma or repetitive stress associated with athletic activities; and can affect bones, soft tissues (ligaments, muscles and tendons) or other organs like the heart, lungs and eyes.[3] Sports-related injuries can be grouped into sprains, strains, fractures, concussions as well as spinal cord, internal organ and head injuries.[3] The importance of psychological factors in sports injury rehabilitation has grown over the past four decades.[4] A study in 2009 proposed that physiotherapists should use a much more holistic approach and incorporate psychological components within their rehabilitation program.[5]

Roughly one out of every 100,000 American high-school athletes sustained a certain form of catastrophic injury.[6] Among collegiate athletes, the injury rate for direct and indirect catastrophic sports injuries was 3.86 per 100,000 participants.[6] The epidemiology of soccer injuries in Rwanda revealed that injury prevalence was 68.1% and the most affected body parts were the ankle and knee.[7] It is obvious that injuries are a likely part of an athlete's life.

The fear of re-injury causes an athlete to hold back, hesitate, heavily tape the injured area and not give 100% effort in an attempt to be cautious and not cause a re-injury.[8] Rehabilitation of sports injuries involves more than just repairing the physical injury and regaining previous levels of physical performance, like understanding the impact of the injury on the athlete and how the psychological factors may interact with the rehabilitation process.[9] The primary aim of physiotherapy in injury rehabilitation is to treat and fully rehabilitate the athlete post-injury or post-operation to prevent further injury and to make the athlete return to the sport within the shortest possible time.[10] Washington-Lofgren *et al.*[11] revealed that athletes expect physiotherapists to provide them with informational support and this helps to shape their expectations of injury rehabilitation. Moreover, athletes have also expressed high expectations from their physiotherapists, believing they (physiotherapists) are capable of recognizing and fulfilling their motivational needs and understanding. This emphasizes the need for physiotherapists to become aware of such athletes' expectations and the need to acquire additional expertise that allows them to meet these expectations. Athletes with positive expectations towards returning to sport have a reduced risk of re-injury as compared to athletes with negative expectations.[1] Lee[10] revealed that athletes have high expectations for accurate informational support and expertise from the physiotherapist. The athletes had expectations for directiveness, genuineness and openness in anticipating information and guidance from the physiotherapist and in setting rehabilitation goals.[10] They also had moderate expectations to be personally committed towards their rehabilitation process.[10] However, the influence of personal and situational factors on an athlete's response to injury and rehabilitation appears inconclusive. Dowswell *et al.*[12] reported that patients' outcomes of dissatisfaction in physiotherapy (treatment or recovery) have been, in part, attributed to unrealistic expectations. Thus, strong social support from physiotherapists has also been found to help athletes adopt a more positive outlook on their way to recovery, which might be apparent in their strong belief in the rehabilitation process.[8] In addition, clarifying

expectations is important in rehabilitation since it helps athletes reduce uncertainties and anxieties of the unknown by increasing their sense of control.[11]

Sports injury affects the physical, social, emotional, spiritual and financial aspects of the athlete's wellbeing.[13] It therefore becomes imperative to include injury severity as an essential measurement that provides an understanding of the extent to which sports injuries affect an athlete's health. Different aspects are used to determine the severity of sports injuries such as nature of injury, duration, medical attention, sports time loss, working time loss, permanent damage and costs of sports injuries.[14] Despite the nature and anatomical location, the extent of symptoms and other consequences of an injury are also crucial.

A strong athlete–physiotherapist relationship is necessary for effective treatment and shaping of athletes' expectations of injury rehabilitation.[10] Previous studies investigating sports physiotherapy in Ghana have focused mainly on the injury pattern, management of the injuries and the need to use physiotherapy services by athletic teams. There appears to be a dearth of information on the assessment of athletes' expectations about physiotherapy in sports injury rehabilitation in Ghana and hence it became the focus of this study.

Method

A cross-sectional survey was carried out at the University of Ghana, Thodosia Okoh hockey pitch and Accra sports stadium training grounds of the athletes recruited for the study. The participants of the study included active athletes drawn from football (soccer), hockey, basketball, boxing and athletes who had either received physiotherapy services or not. Athletes who could not read and write were excluded from the study. Ethics approval (Appendix A) was sought and obtained from the Ethics and Protocol Review Committee of the School of Biomedical and Allied Health Sciences, College of Health Sciences, University of Ghana, before the commencement of the research (Ethics Approval No. SAHS-ET/1027/3367/AA/26A/2012-2013). Permission was sought and obtained from the Authorities of the different sporting disciplines that were visited. Written consent was also obtained from the athletes who agreed to participate in the study after the rationale of the study had been explained to them. Participants were also assured of anonymity and confidentiality of information obtained.

Data collecting tool

The expectation about athletic training (EAAT) questionnaire used by Lee[10] (Appendix C) was adopted together with a data capturing form (Appendix B) and used to obtain data for this study. The data capturing form was used to capture demographic characteristics such as gender, age, highest educational qualification and level of competition. The EAAT questionnaire assessed the athletes' expectations about physiotherapy in sports injury rehabilitation. Respondents were asked to rate their expectations on a seven-point Likert scale (from 1 = strongly disagree to 7 = strongly agree). Response options "disagree", "moderately disagree", "neutral", "moderately agree" and "agree" were assigned the scores of 2, 3, 4, 5 and 6, respectively.

The EAAT questionnaire comprises 66 items, which measures 11 subscales of athletes' expectations; that is, motivation, openness, responsibility, attractiveness, outcome, acceptance, confrontation, genuineness, nurturance, directiveness and empathy. The questionnaire also considers major dimensions of what athletes may expect when receiving physiotherapy treatment or counseling and also a comprehensive definition of the athletes' expectations in the physiotherapy service delivery. The questionnaire has an internal reliability of 0.79.

Procedure for data collection

Permission to conduct the study was sought and obtained from the managements of the various athletic teams (football, hockey, basketball, boxing and athletics) involved. Participants residing in the Greater Accra Region of Ghana were recruited at the training grounds during their training sessions. Football (soccer) and basketball players were recruited from the University of Ghana, boxers and athletics from the Accra sports stadium and hockey players from the Thodosia Okoh hockey pitch training grounds, respectively.

The data capturing form and questionnaire (Appendices B and C) were distributed to the athletes of the participating sporting disciplines. Some participants completed them after the

training and returned them on the same day. Those who could not complete the form and questionnaire were allowed to take them home and return the completed ones on their next training day. Phone numbers were collected from those who could not complete the questionnaire instantly and follow-ups were made. The researchers collected the data over a two-month period.

Data analysis

The data obtained was analyzed using the SPSS package 18.0. Percentages, means and standard deviations (SDs) of the expectation scores were computed. Kruskal–Wallis test was used to determine the differences in the subscales of athletes' expectations according to competition level and injury type while Mann–Whitney test was used to determine the differences in the subscales of athletes' expectations according to gender, previous experience of physiotherapy and previous use of mental skills training in rehabilitation. The level of significance was set at $p < 0.05$.

Results

The 120 respondents (athletes) recruited for this study comprised of 85 males (70.8%) and 35 females (29.2%). This comprised of 40 footballers (33.3%), 33 hockey players (27.5%), 10 boxers (8.3%), 23 from athletics (19.2%) and 14 basketball players (11.7%). The minimum and maximum ages of the athletes were 18 years and 36 years, respectively, with an average age of 22.5 ± 3.6 years. Table 1 shows the distributions of the socio-demographic characteristics of athletes. Majority of the athletes (39; 32.5%) have been involved in their various sports for over 4–6 years while six athletes (5%) train for over 10–12 h per week.

Figure 1 shows the percentage distribution of sports-related injuries with 43 athletes (35.8%) sustaining single injury and two athletes (1.7%) sustaining eight injuries. The distribution of types of injuries revealed that 90 athletes (75%) had acute injuries, 11 (9%) had chronic injuries and 19 (16%) had both. The results revealed that 80 athletes (66.7%) had minor, 33 (27.5%) had moderate, six (5%) had severe and one (0.8%) had catastrophic types of injuries. Approximately 69 athletes (57.5%) had no previous physiotherapy experience in injury rehabilitation while 51 athletes (42.5%) had had previous physiotherapy treatment in their injury rehabilitation.

Table 1. Distributions of socio-demographic characteristics of athletes.

Variable	Frequency	Percentage
Level of Competition		
Recreational	2	1.7
College/University	24	20.0
County/Regional	5	4.2
National	53	44.2
International	14	11.7
Professional	22	18.3
Total	120	100
Sports Participation		
Athletics	23	19.2
Hockey	33	27.5
Basketball	14	11.7
Boxing	10	8.3
Soccer	40	33.3
Total	120	100
Years of Sports		
1–3	13	10.8
4–6	39	32.5
7–9	28	23.3
10–12	29	24.2
>12	11	9.2
Total	120	100
Hours of Training		
1–3	17	14.2
4–6	22	18.3
7–9	20	16.7
10–12	6	5.0
13–15	29	24.2
>15	26	21.7
Total	120	100

Table 2 shows the mean and SD values of the factors of athletes' expectations. The most

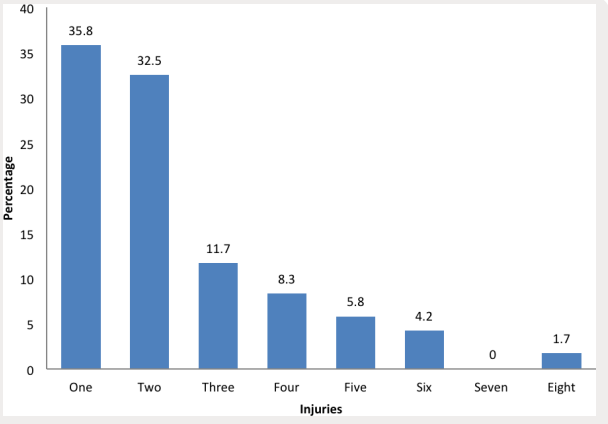

Fig. 1. Percentage distribution of sports-related injury frequencies.

Table 2. The mean and SD scores of the factors of athletes' expectations.

Factor	Mean	SD
Acceptance	5.92	0.76
Motivation	5.44	0.08
Attractiveness	5.63	0.89
Responsibility	6.23	1.43
Directiveness	6.11	0.77
Empathy	5.65	0.63
Confrontation	5.79	0.80
Nurturance	6.02	0.72
Genuineness	6.14	0.73
Openness	5.79	0.91
Outcome	6.13	0.77

influencing factors that affect athletes' expectations were directiveness (mean = 6.11, SD = 0.77), nurturance (mean = 6.02, SD = 0.72) and genuineness (mean = 6.02, SD = 0.72).

The results revealed no significant difference in the mean scores of the various factors between males and females except confrontation ($p = 0.032$), which was statistically significant. Table 3 shows the comparison of mean scores of the various factors among gender, previous physiotherapy experience and use of mental skills.

The study revealed that the differences in the types of injuries caused no significant difference in the mean scores of the various factors ($p > 0.05$). Table 4 shows the comparison of mean scores of the various factors among injury types.

Table 5 showed that there was no significant difference in the mean scores of the various factors between athletes who had previously experienced physiotherapy and those who had not ($p > 0.05$). Table 6 showed that the study did not reveal any significant difference in the mean scores of the various factors between athletes who had experienced mental skills training and those who had not ($p > 0.05$).

Discussion

The study shows that majority of athletes who took part in this study from Greater Accra Region are males. This observation could be due to the impression that sports require vigorous activities that are best suited for males. The average age of 22.5 ± 3.6 years shows youthful involvement in sports, which is a good prospect for the nation and personal development. The study revealed that most of the athletes had been involved in their

Table 3. Comparison of mean scores of the various factors among gender, previous physiotherapy experience and use of mental skills.

Factor	Gender	Mean	*p*-Value	Physio experience	Mean	*p*-Value	Mental skills usage	Mean	*p*-Value
Acceptance	Male	5.89	0.653	Yes	5.89	0.437	Yes	5.87	0.835
	Female	5.95		No	5.95		No	5.94	
Motivation	Male	5.31	0.707	Yes	5.31	0.639	Yes	5.13	0.052
	Female	5.54		No	5.54		No	5.57	
Attractiveness	Male	5.56	0.195	Yes	5.56	0.877	Yes	5.54	0.717
	Female	5.69		No	5.69		No	5.67	
Responsibility	Male	6.69	0.815	Yes	6.69	0.396	Yes	6.80	0.302
	Female	5.88		No	5.88		No	5.98	
Directiveness	Male	6.06	0.748	Yes	6.06	0.682	Yes	6.04	0.707
	Female	6.13		No	6.13		No	6.13	
Empathy	Male	5.53	0.925	Yes	5.53	0.738	Yes	5.51	0.154
	Female	5.72		No	5.72		No	5.70	
Confrontation	Male	5.64	0.032*	Yes	5.64	0.883	Yes	5.59	0.069
	Female	5.89		No	5.89		No	5.87	
Nurturance	Male	5.99	0.337	Yes	5.99	0.752	Yes	5.84	0.103
	Female	6.04		No	6.04		No	6.09	
Genuineness	Male	6.10	0.770	Yes	6.10	0.066	Yes	6.01	0.234
	Female	6.16		No	6.16		No	6.19	
Openness	Male	5.46	0.442	Yes	5.46	0.333	Yes	5.76	0.468
	Female	6.02		No	6.02		No	5.79	
Outcome	Male	6.10	0.270	Yes	6.10	0.486	Yes	6.02	0.113
	Female	6.15		No	6.15		No	6.17	

Table 4. Comparison of mean scores of the various factors among injury types.

Factor	Injury type	Mean	*p*-Value
Acceptance	Acute	5.93	
	Chronic	5.96	0.649
	Both	5.82	
Motivation	Acute	5.52	
	Chronic	5.21	0.188
	Both	5.19	
Attractiveness	Acute	5.68	
	Chronic	5.57	0.505
	Both	5.42	
Responsibility	Acute	6.30	
	Chronic	6.13	0.538
	Both	5.92	
Directiveness	Acute	6.12	
	Chronic	6.25	0.681
	Both	5.92	
Empathy	Acute	5.61	
	Chronic	5.95	0.510
	Both	5.60	
Confrontation	Acute	5.76	
	Chronic	5.66	0.275
	Both	6.00	
Nurturance	Acute	6.02	
	Chronic	5.87	0.810
	Both	6.07	
Genuineness	Acute	6.15	
	Chronic	5.95	0.422
	Both	6.21	
Openness	Acute	5.83	
	Chronic	5.77	0.326
	Both	5.55	
Outcome	Acute	6.18	
	Chronic	5.95	0.322
	Both	5.97	

choice of sport for over 4–6 years. This might be due to their intense interest in sports during their teens, considering the average age of the athletes. A great number of athletes train for over 13–15 h per week, which could be as a result of their trainers/coaches scheduling the training times to meet competition demands.

Athletes in the Greater Accra Region had high expectations for all the 11 factors. This shows that the athletes had high expectations of the outcome of physiotherapy sessions and the physiotherapists treating them while the athletes themselves needed to be committed to their rehabilitation.

The athletes reported highest expectations for responsibility, directiveness, genuineness and

Table 5. Comparison of mean scores of the various factors among competition levels.

Factor	Competition level	Mean	*p*-Value
Acceptance	Recreational	6.33	
	College/University	5.83	
	County/Regional/State	5.60	0.435
	National	5.83	
	International	6.23	
	Professional	6.09	
Motivation	Recreational	6.16	
	College/University	5.36	
	County/Regional/State	5.20	0.290
	National	5.25	
	International	5.78	
	Professional	5.75	
Attractiveness	Recreational	5.16	
	College/University	5.61	
	County/Regional/State	5.06	
	National	5.52	0.121
	International	5.69	
	Professional	6.04	
Responsibility	Recreational	6.25	
	College/University	6.14	
	County/Regional/State	6.50	0.024*
	National	6.37	
	International	5.92	
	Professional	6.09	
Directiveness	Recreational	5.75	
	College/University	6.20	
	County/Regional/State	6.30	0.324
	National	5.86	
	International	6.61	
	Professional	6.25	
Empathy	Recreational	5.25	
	College/University	5.41	
	County/Regional/State	5.90	0.140
	National	5.50	
	International	6.07	
	Professional	5.93	
Confrontation	Recreational	5.66	
	College/University	5.34	
	County/Regional/State	5.73	
	National	5.85	0.241
	International	6.04	
	Professional	5.98	
Nurturance	Recreational	6.66	
	College/University	5.90	
	County/Regional/State	5.86	
	National	5.89	0.076
	International	6.11	
	Professional	6.36	
Genuineness	Recreational	7.00	
	College/University	6.22	
	County/Regional/State	6.20	0.076
	National	5.99	
	International	6.28	

Table 5. (*Continued*)

Factor	Competition level	Mean	*p*-Value
	Professional	6.22	
Openness	Recreational	5.50	
	College/University	5.60	
	County/Regional/State	4.80	0.073
	National	5.81	
	International	5.82	
	Professional	6.15	
Outcome	Recreational	6.25	
	College/University	5.89	
	County/Regional/State	6.20	0.576
	National	6.15	
	International	6.35	
	Professional	6.18	

Note: * = Significant.

outcome. This indicates that athletes expect a high level of professionalism from the physiotherapist as well as maturity from themselves in terms of decision-making. These findings are similar to the ones reported by Lee.[10] The athletes also expect the physiotherapists to explain the causes of their injuries and outcomes of the rehabilitation to them. This would give the athlete a fair idea of how the treatment will go and its benefits. This could make the athlete feel involved and be a part of the rehabilitation.

Table 6. Comparison of athletes' expectations among selected demographic characteristics.

		p-Value
	Gender	
Total Expectation	Male	
	Female	0.637
	Total	
	Physiotherapy Experience	
Total Expectation	Yes	0.942
	No	
	Total	
	Mental Skills Usage	
Total Expectation	Yes	0.2
	No	
	Total	
	Competition Level	
Total Expectation	Recreational	
	College/University	
	County/Regional/State	0.0290*
	National	
	International	
	Professional	
	Total	
	Injury Type	
Total Expectation	Acute	
	Chronic	0.910
	Both	

Note: * = Significant.

The athletes had moderate expectations for motivation. This could be due to the fact that athletes know the importance of rehabilitation and the consequences of late recovery. They expect some kind of motivation from the physiotherapists to attend the rehabilitation sessions whether painful or not. The findings are contrary to the ones reported by Washington-Lofgren *et al.*[11] This asserts the fact that educating the athlete regarding what is expected in addition to the injury may in itself reduce the athlete's anxiety by eliminating the fear of the unknown.

The study showed differences in athletes' expectations for confrontation. Females had higher expectations for confrontations and openness than males. This could be due to the fact that females are more particular about the things they do and their consequences. This however contributes to their high scores as compared to males. Clement and Shannon[5] reported contrary results, thus the results from this study could be due to the effort and dedication the athletes give to their sports and the implications injuries have on their career.

There were no significant differences between athletes' expectations about physiotherapy and the type of injury they had during rehabilitation. The study revealed that chronically injured athletes had high expectations of the physiotherapist to be genuine and to be able to motivate. This is in congruence with the findings of Roh and Perna.[15] Chronically injured athletes had the highest expectations for empathy and athletes with both injury types also recorded the highest expectations for confrontation. This could be due to the severity of the injuries they sustained and its possible impact on their career.

This study revealed no significant difference between athletes' expectations of physiotherapy and their previous experience with physiotherapy. Majority of the participants had had no physiotherapy as part of their previous injury rehabilitation. This could be due to the moderate awareness and underutilization of physiotherapy services by sports teams in Ghana. Most of the teams employ the services of masseurs who are professionally trained to massage. Majority of the participants in this study reported never using mental skills, for

goal setting, relaxation and mental imagery, as part of the injury rehabilitation. Athletes with previous use of mental skills had moderate expectations for motivation, empathy, confrontation, nurturance and outcome. Though they appreciated their usage, they were somewhat worried about the absence of these skills during their training sessions and that contributed to their moderate expectations. This corroborates with the findings of Ludewig[8] that athletic trainers perceived physiotherapists to be more important for their role as motivating athletes during injury rehabilitation than perceived by the athletes.

The findings of the study showed no significant difference in the various athletes' competition levels except responsibility. Athletes who played at the national level had moderate expectations for all the factors except openness and outcome for which they had high expectations. This could be attributed to the fact that national teams usually have physiotherapists in their medical teams. The athletes get access to these services and this contributed to their moderate–high expectations as compared to athletes competing at other levels. These findings were however contrary to those of Lee[10] that professional athletes have higher expectations for nurturance than recreational or national-level athletes.

Conclusion

The findings of this study indicate that athletes in Greater Accra Region have high expectations of physiotherapy for sport injury rehabilitation. Competition level had a significant association with athletes' expectations about physiotherapy in sport injury rehabilitation. There was also underutilization of physiotherapy services among the sports teams.

Based on the findings of this study, it is recommended that sports physiotherapists in Accra involve their injured athletes in the rehabilitation programs by giving them all the information about their injuries and how the rehabilitation will help.

Acknowledgments

We would like to acknowledge all athletes who took time off their busy schedules to participate in this study.

Ethics

Ethics approval was sought from the Ethics and Protocol Review Committee of the School of Biomedical and Allied Health Sciences, College of Health Sciences, University of Ghana.

Conflict of Interest

There were no competing interests from all authors in this study.

Funding/Support

No financial or material support of any kind was received for the work described in this paper.

Author Contributions

Selorm Afidemenyo and Jonathan Quartey contributed to the study design and collected data. Jonathan Quartey, Selorm Afidemenyo and Samuel Koranteng Kwakye analyzed the data obtained. Jonathan Quartey and Samuel Koranteng Kwakye sourced and reviewed relevant literature. Jonathan Quartey, Selorm Afidemenyo and Samuel Koranteng Kwakye wrote and also reviewed the manuscript for the important intellectual content. Jonathan Quartey, Selorm Afidemenyo and Samuel Koranteng Kwakye revised the final draft and approved the final version of the manuscript for submission.

Appendix A. Ethics Approval

SCHOOL OF ALLIED HEALTH SCIENCES
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My Ref. No. SAHS/10273367
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Accra
Ghana

10th July, 2012

Ms Selorm Afidemenyo,
Dept. of Physiotherapy,
SAHS.
Korle Bu.

Dear Ms Afidemenyo,

ETHICS CLEARANCE

Ethics Identification Number: SAHS – ET./10273367/AA/26A/2012-2013.

Following a meeting of the Ethics and Protocol Review Committee of the School of Allied Health Sciences held on Friday 6th July, 2012, I write on behalf of the Committee to approve your research proposal as follows:

TITLE OF RESEARCH PROPOSAL: **"Athletes expectation about physiotherapy in sports injury rehabilitation in Greater Accra Region".**

This approval requires that you submit six-monthly review reports of the protocol to the Committee and a final full review to the Committee on completion of the research. The Committee may observe the procedures and records of the research during and after implementation.

Please note that any significant modification of the research must be submitted to the Committee for review and approval before its implementation.

You are required to report all serious adverse events related to this research to the Committee within seven (7) days verbally and fourteen (14) days in writing.

As part of the review process, it is the Committee's duty to review the ethical aspects of any manuscript that may be produced from this research. You will therefore, be required to furnish the Committee with any manuscript for publication.

Please always quote the ethical identification number in all future correspondence in relation to this protocol.

Thank you.

Yours sincerely,

Dr. (Maj. Rtd.) George Asare
(Chairman, Ethics and Protocol Review Committee)

cc Ag. Dean
Co-ordinator, Dept. of Physiotherapy
Senior Assistant Registrar

Appendix B. Data Capturing Form

DEMOGRAPHIC INFORMATION SHEET

Please answer the following questions about yourself and your involvement in sport.

(1) What is your gender?
   (a) Male
   (b) Female

(2) How old are you?.....

(3) Are you in school? YES/NO
   (a) If yes, what year are you in school? .....
   (b) If no, what is your highest qualification? .....

(4) What is your level of competition?
   (a) Recreational
   (b) College/University
   (c) County/Regional/State
   (d) National
   (e) International
   (f) Professional

(5) What sport(s) are you currently involved in?.....

(6) How many years have you been involved in your sport?.....

(7) Typically how many hours do you train/week?.....

(8) How many sport-related injuries have you had?.....

(9) What type of injuries have you had?
   (a) Acute (happened suddenly during sport)
   (b) Chronic (have occurred over time, e.g., overuse injuries)
   (c) Both

(10) How would you classify the severity of MOST of your injuries?
   (a) Minor injury (prevents participation in practice/competition for up to 8 days)
      (i) How many?.....
   (b) Moderate injury (prevents participation in practice/competition for 8–21 days)
      (i) How many?.....
   (c) Severe injury (prevents participation in practice/competition for more than 21 days)
      (i) How many?.....
   (d) Catastrophic injury (e.g., career ending, permanent physical disability)
      (i) How many?.....

(11) Do you have any past experiences with physiotherapy? YES/NO
   (a) If yes, how many of your past injuries have required physiotherapy treatment? .....

(12) Have you ever used mental skills (self-talk, mental imagery, goal setting, relaxation, etc.) as part of your sport-injury rehabilitation? YES/NO
   (a) If yes, what did you use?.....
   (b) And did the physiotherapists teach you how to use the skills? YES/NO

(13) If yes to (12), do you believe that the use of mental skills helped you rehabilitate faster or more completely from sport injury? YES/NO

Appendix C. EAAT Questionnaire

Indicate your level of agreement with each of the statements by ticking the number that corresponds to your feelings toward each statement. Answer the following questions using the scale below:

1 = Strongly Disagree; 2 = Disagree; 3 = Moderately Disagree; 4 = Neutral; 5 = Moderately Agree; 6 = Agree; 7 = Strongly Agree.

I EXPECT TO...

(1) Take psychological tests.	[1] [2] [3] [4] [5] [6] [7]
(2) Like the physiotherapist.	[1] [2] [3] [4] [5] [6] [7]
(3) Gain some information about how to solve problems.	[1] [2] [3] [4] [5] [6] [7]
(4) Openly express my emotions regarding my problems and myself.	[1] [2] [3] [4] [5] [6] [7]
(5) Take responsibility for making my own decisions.	[1] [2] [3] [4] [5] [6] [7]
(6) Talk about my present concerns.	[1] [2] [3] [4] [5] [6] [7]

I EXPECT TO...

(7) Get practice in relating openly and honestly to another person within the physiotherapist–athlete relationship.	[1] [2] [3] [4] [5] [6] [7]

(8) Enjoy my visit with the physiotherapist. [1] [2] [3] [4] [5] [6] [7]
(9) Practice some things I need to learn. [1] [2] [3] [4] [5] [6] [7]
(10) Get a better understanding of the injury and myself. [1] [2] [3] [4] [5] [6] [7]
(11) Complete physiological assessments. [1] [2] [3] [4] [5] [6] [7]
(12) Continue the physiotherapy visits for at least a few weeks, even if at first I am not sure it will help. [1] [2] [3] [4] [5] [6] [7]

I EXPECT TO...

(13) See the physiotherapist for more than three visits. [1] [2] [3] [4] [5] [6] [7]
(14) Never need to visit the physiotherapist again. [1] [2] [3] [4] [5] [6] [7]
(15) Enjoy being with the physiotherapist. [1] [2] [3] [4] [5] [6] [7]

[1 = Strongly Disagree; 2 = Disagree; 3 = Moderately Disagree; 4 = Neutral; 5 = Moderately Agree; 6 = Agree; 7 = Strongly Agree.]

(16) Continue to visit the physiotherapist even though it may be painful or unpleasant at times. [1] [2] [3] [4] [5] [6] [7]
(17) Contribute as much as I can in terms of expressing my feelings and discussing them. [1] [2] [3] [4] [5] [6] [7]
(18) Work with the physiotherapist in setting my rehabilitation goals. [1] [2] [3] [4] [5] [6] [7]

I EXPECT TO...

(19) Find that the rehabilitation relationship will help the physiotherapist and me in identifying problems on which I need to work. [1] [2] [3] [4] [5] [6] [7]
(20) Become better able to help myself in the future. [1] [2] [3] [4] [5] [6] [7]
(21) Feel safe enough with the physiotherapist to really say how I feel. [1] [2] [3] [4] [5] [6] [7]
(22) Improve my relationships with others. [1] [2] [3] [4] [5] [6] [7]
(23) Ask the physiotherapist to explain what he or she means whenever I do not understand something that is said. [1] [2] [3] [4] [5] [6] [7]
(24) Work on my concerns outside the physiotherapist visit. [1] [2] [3] [4] [5] [6] [7]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(25) Explain what is wrong. [1] [2] [3] [4] [5] [6] [7]
(26) Help me identify and label my feelings so I can better them. [1] [2] [3] [4] [5] [6] [7]
(27) Tell me what to do. [1] [2] [3] [4] [5] [6] [7]
(28) Know how I feel even when I cannot say quite what I mean. [1] [2] [3] [4] [5] [6] [7]
(29) Know how to help me. [1] [2] [3] [4] [5] [6] [7]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(30) Help me identify particular situations where I have problems. [1] [2] [3] [4] [5] [6] [7]
(31) Give encouragement and reassurance. [1] [2] [3] [4] [5] [6] [7]

[1 = Strongly Disagree; 2 = Disagree; 3 = Moderately Disagree; 4 = Neutral; 5 = Moderately Agree; 6 = Agree; 7 = Strongly Agree.]

(32) Help me to know how I am feeling by putting my feelings into words for me. [1] [2] [3] [4] [5] [6] [7]
(33) Be a "real" person and not just a person doing a job. [1] [2] [3] [4] [5] [6] [7]
(34) Help me discover what particular aspects of my behavior are relevant to my problems. [1] [2] [3] [4] [5] [6] [7]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(35) Inspire confidence and trust. [1] [2] [3] [4] [5] [6] [7]
(36) Frequently offer me advice. [1] [2] [3] [4] [5] [6] [7]
(37) Be honest with me. [1] [2] [3] [4] [5] [6] [7]
(38) Be someone who can be counted on. [1] [2] [3] [4] [5] [6] [7]
(39) Be friendly and warm towards me. [1] [2] [3] [4] [5] [6] [7]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(40) Help me solve my problems. [1] [2] [3] [4] [5] [6] [7]
(41) Discuss his or her attitudes and relate them to my problem. [1] [2] [3] [4] [5] [6] [7]
(42) Give me support. [1] [2] [3] [4] [5] [6] [7]
(43) Help me decide what mental plan is best. [1] [2] [3] [4] [5] [6] [7]
(44) Fix my problem(s). [1] [2] [3] [4] [5] [6] [7]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(45) Know how I feel at times, without my having to speak. [1] [2] [3] [4] [5] [6] [7]
(46) Do most of the talking. [1] [2] [3] [4] [5] [6] [7]
(47) Respect me as a person. [1] [2] [3] [4] [5] [6] [7]
(48) Help me to regain my pre-injury level of fitness. [1] [2] [3] [4] [5] [6] [7]
(49) Discuss his or her experiences and relates them to my problems. [1] [2] [3] [4] [5] [6] [7]

[1 = Strongly Disagree; 2 = Disagree; 3 = Moderately Disagree; 4 = Neutral; 5 = Moderately Agree; 6 = Agree; 7 = Strongly Agree.]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(50) Praise me when I show improvement. [1] [2] [3] [4] [5] [6] [7]
(51) Make me face up to the differences between what I say and how I behave. [1] [2] [3] [4] [5] [6] [7]
(52) Set clear, specific and measurable goals for rehabilitation. [1] [2] [3] [4] [5] [6] [7]
(53) Talk freely about himself or herself. [1] [2] [3] [4] [5] [6] [7]
(54) Have no trouble getting along with people. [1] [2] [3] [4] [5] [6] [7]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(55) To use psychological interventions (e.g., imagery, relaxation) during physiotherapy treatment. [1] [2] [3] [4] [5] [6] [7]
(56) Like me. [1] [2] [3] [4] [5] [6] [7]
(57) Be someone I can really trust. [1] [2] [3] [4] [5] [6] [7]
(58) Like me in spite of my weaknesses or strengths that he or she discovers about me. [1] [2] [3] [4] [5] [6] [7]
(59) Make me face up to the differences between how I see myself and how I am seen by others. [1] [2] [3] [4] [5] [6] [7]
(60) Be someone who is calm and easygoing. [1] [2] [3] [4] [5] [6] [7]

I EXPECT THE SPORT INJURY REHABILITATION PHYSIOTHERAPIST TO...

(61) Assist me on how to use positive self-talk. [1] [2] [3] [4] [5] [6] [7]
(62) Point out to me the differences between what I am and what I want to be. [1] [2] [3] [4] [5] [6] [7]
(63) Just give me information. [1] [2] [3] [4] [5] [6] [7]
(64) Get along well in the world. [1] [2] [3] [4] [5] [6] [7]

[1 = Strongly Disagree; 2 = Disagree; 3 = Moderately Disagree; 4 = Neutral; 5 = Moderately Agree; 6 = Agree; 7 =Strongly.]

(65) Be able to introduce me to other athletes who have had and are now healed from a similar injury. [1] [2] [3] [4] [5] [6] [7]
(66) Motivate me to attend physiotherapy sessions. [1] [2] [3] [4] [5] [6] [7]

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